

# **SiteManager** **Training Manual**



Module F  
Chapter 4

**Material Management**  
**Mix Design**  
**PCC Mix Design**

## **Section F-4-4** **Viewing a Portland Cement Concrete Mix** **Design**

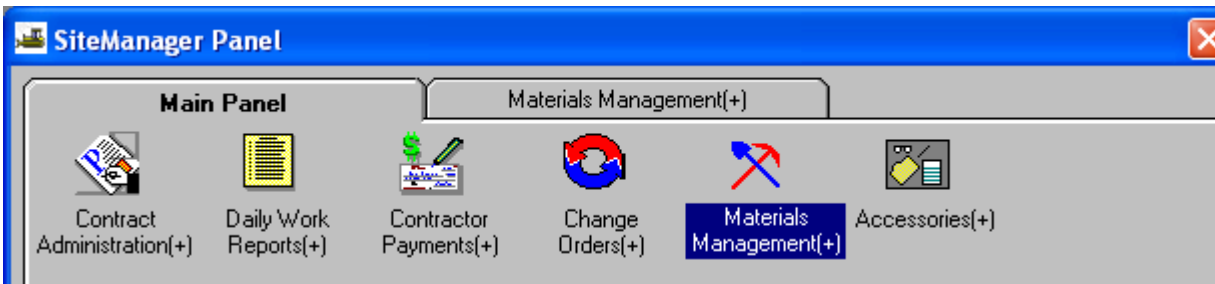
<b>Student's Version</b>
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Indiana Department of Transportation  
November 2007 Version 3.7b

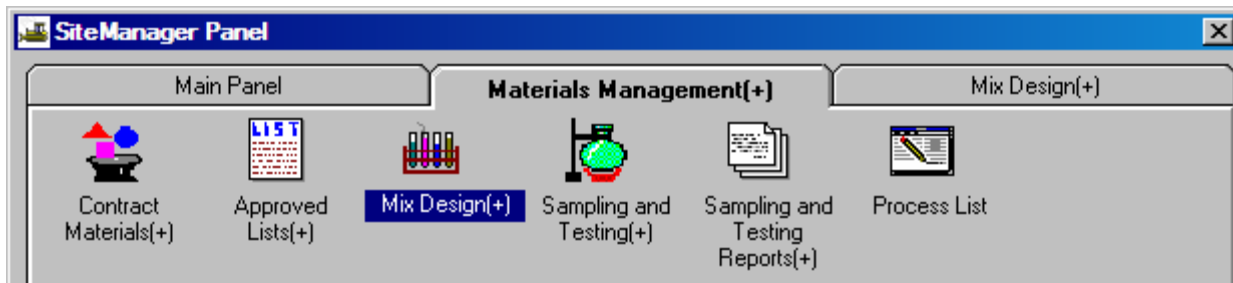
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## Viewing a Portland Cement Concrete Mix Design

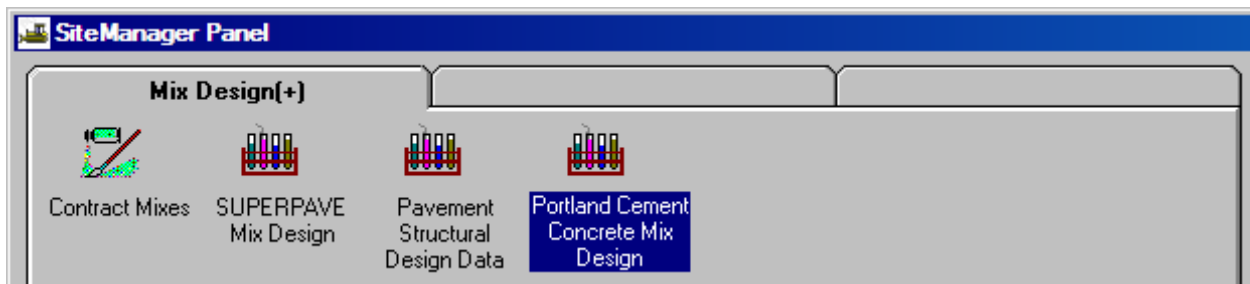
This document will explain how to view **Portland Cement Concrete (PCC) Mix Design** information.



“Double-click” on the **Materials Management** icon located on the Main Panel.



“Double-click” on **Mix Design**.



“Double-click” on **Portland Cement Concrete Mix Design**.

**Portland Cement Concrete Mix Design List**

**Selection**

Mix ID

Find :

**Mix ID**

Mix ID	Material Code	Producer Supplier Code	Producer Supplier Name	Effective Date	
041502120P	502M00010	CONC9027	Plato's Concrete Mix	03/06/05	12
041702123P	702M00010	CONC9018	Aru Ready Mix Co.	01/04/04	12
051501123T	501M00010	CONC9017	IONA Company, Inc	03/08/05	03
051501637P	501M00010	CONC9018	Aru Ready Mix Co.	04/10/05	12
051501637T	501M00010	CONC9018	Aru Ready Mix Co.	04/08/05	04

OK Cancel

Use the Scroll or Find/Filter/Sort technique to locate the appropriate **Mix ID**.

“Double-click” on the appropriate **Mix ID**.

## Description tab

The Description tab includes general information about the CMD.

AASHTO SiteManager

File Edit Services Window Help

Portland Cement Concrete Mix Design Description

Description Properties Materials Gradations

Mix ID: 051501637P

Material Code: 501M00010 QC/QA PCCP

Producer Supplier Code: CONC9018 Aru Ready Mix Co.

Designer Name: Cora Gated

Concrete Class Type: QC/QA PCCP

Submitted Date: 04/10/05 Termination Date: 12/31/06

Approved Date: 00/00/00 Approved By User ID: INDOT

**Mix ID:** The **Mix ID** is a unique number to identify the CMD. The numbering system will utilized the yydsss###T format.

Example: 041402123D

- **yy3sss123T** The first two digits (yy) are the last two digits of the year the mix design is submitted.
- **yy3sss123T** The third digit represents the district the mix design was submitted.
- **yy3sss123T** The fourth, fifth, and sixth digits are numbers representing the specification reference for the mix design
- **yy3sss123T** The seventh, eighth and ninth digits are numbers assigned by the district.
- **yy3sss123T** The last digit is used to designate CMD type,
  - **T** represents the CMD Trial batch submittal based on adjustment made after the trial batch, when required,
  - **P** represents the CMD submittal after adjustments are made during the first lot of Production or approval of the CMDS. The targets on CMDP are used for acceptance and quality assurance adjustment calculations.

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File Edit Services Window Help

**Portland Cement Concrete Mix Design Description**

Description Properties Materials Gradations

Mix ID: 051501637P

Material Code: 501M00010 QC/QA PCCP

Producer Supplier Code: CONC9018 Aru Ready Mix Co.

Designer Name: Cora Gated

Concrete Class Type: QC/QA PCCP

Submitted Date: 04/10/05 Termination Date: 12/31/06

Approved Date: 00/00/00 Approved By User ID: INDOT

**Material Code:** The **Material Code** represents the material associated to the CMD. The material name is displayed in the field located to the right of the **Material Code** field.

**Producer Supplier Code:** The **Producer Supplier Code** represents the facility where the PCC mixture will be produced. The Producer/Supplier's name and location is displayed in the field located to the right of the **Producer Supplier Code** field.

**Designer Name:** The **Designer Name** is the individual or mix design lab that created the CMD.

**Concrete Class Type:** **Concrete Class Type** identifies the topic of the specification used to develop the CMD.

**Submitted Date:** **Submitted Date** is the date the CMD was submitted to the district.

#### **Termination Date:**

- CMDT: the **Termination Date** is the date the CMDT becomes the CMDP. The field shall remain 00/00/00 until the CMDP is approved. The CMDT is used to start production of QC/QA PCC.
- CMDP: the **Termination Date** is the date the CMDP shall no longer be used without additional review. This date is 12/31/yy where yy is the year following the year of the **Submitted Date**. The CMDP is used for production and acceptance purposes.

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File Edit Services Window Help

**Portland Cement Concrete Mix Design Description**

Description Properties Materials Gradations

Mix ID: 051501637P

Material Code: 501M00010 QC/QA PCCP

Producer Supplier Code: CONC9018 Aru Ready Mix Co.

Designer Name: Cora Gated

Concrete Class Type: QC/QA PCCP

Submitted Date: 04/10/05 Termination Date: 12/31/06

Approved Date: 00/00/00 Approved By User ID: INDOT

**Approved Date:** The **Approved Date** is the date when the CMD is approved.

**Approved By User ID:** The **Approved By User ID** is populated with the user ID of the individual who approves the CMD.

**AASHTO SiteManager**

File Edit Services Window Help

**Portland Cement Concrete Mix Design Description**

Description Properties Materials Gradations

Mix ID: 051501637P

Material Code: 501M00010 QC/QA PCCP


Producer Supplier Code: CONC9018 Aru Ready Mix Co.

Designer Name: Cora Gated

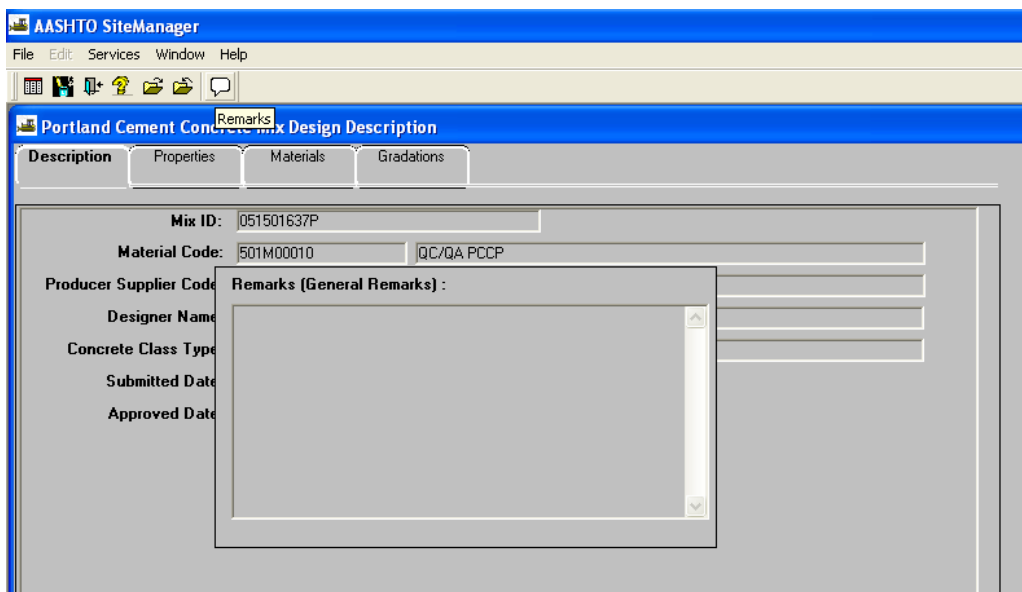
Concrete Class Type: QC/QA PCCP


Submitted Date: 04/10/05 Termination Date: 12/31/06

Approved Date: 00/00/00 Approved By User ID: INDOT

Additional information about the CMD can be viewed when the **Remarks**  balloon contains lines.

“Click” on the **Remarks**  button located on the toolbar.



After viewing the information, “click” on the **Remarks**  button located on the toolbar to close the **Remarks (General Remarks)** panel.



## Properties tab

The **Properties** tab includes the material properties of the CMD.

The screenshot shows the AASHTO SiteManager interface. The title bar reads "AASHTO SiteManager". The menu bar includes "File", "Edit", "Services", "Window", and "Help". The toolbar contains icons for file operations. The main window is titled "Portland Cement Concrete Mix Design Properties". It has four tabs: "Description", "Properties" (which is selected), "Materials", and "Gradations". Below the tabs, there is a "Mix ID" field with the value "051501637P". The main area contains several input fields and labels:

Average Flexural Strength:	680	Design Strength Specified:	570
Theoretical Unit Wt:	145	Pounds per Cubic Foot (pcf)	
Water Cement Ratio:	0.41		
Unit Weight Measured:	145	Pounds per Cubic Foot (pcf)	
Air Content Measure:	6.5		
Slump Measured:	1.5	Inches	INDOT

“Click” on the **Properties** tab.

**Average Flexural Strength:** **Average Flexural Strength** is the average flexural strength obtained during a trial batch.

**Design Strength Specified:** **Design Strength Specified** is the minimum requirement for the average flexural strength as per the Specification.

**Theoretical Unit Wt.:** **Theoretical Unit Wt.** is the minimum requirement for the unit weight as per the Specification.

**Water Cement Ratio:** **Water Cement Ratio** is the water cement ratio calculated during the trial batch or as specified.

**Unit Weight Measured:** **Unit Weight Measured** is the unit weight determined during the trial batch or as specified.

**Air Content Measure:** **Air Content Measure** is the air content measured during the trial batch or as specified.

**Slump Measured:** **Slump Measured** is the slump measured during the trial batch or as specified.

## Materials tab

The **Materials** tab is where individual materials and their properties that are associated to the CMD can be viewed.

**AASHTO SiteManager**

File Edit Services Window Help

**Portland Cement Concrete Mix Design Materials**

Description Properties **Materials** Gradations

Mix ID 051501637P

Material Code	Material Full Name	Producer Supplier Code	Producer Supplier Name
904M06020	FA, NS, 23	Q982230	Rock and Roll, Inc
912M00100	Air Entraining Admixture	8266	W. R. Grace & Co
913M00040	Water	H20001	Municipal Water Source
904M00030	CA, Class AP, CS, 8	Q982230	Rock and Roll, Inc
901M00060	Portland Cement, Type I	W024444	Certifiable Cement
501M00010	QC/QA PCCP	CONC9018	Aru Ready Mix Co.

Material Code: 904M06020 FA, NS, 23

Brand Name/Ledges: 2-7B

Producer Supplier Code: Q982230 Rock and Roll, Inc

Sample ID: Specific Gravity:

Bulk Specific Gravity: 2.59 SSD Weight: 2.59 **INDOT**

Absorption Percent: 1.27 Batch Percent/Rate: 34.3%

Batch Mass: 1332.45 Units Type: Pounds

“Click” on the **Material** tab.

“Click” on the material to be viewed located in the **Material Full Name** column of the top panel.

The information in the bottom panel reflects information for the highlighted material located in the top panel.

**Material Code:** **Material Code** is the code that identifies the individual materials that make up the PCC mixture. The material name is displayed in the field located to the right of the **Material Code** field.

### Brand Name/Ledges

- **Brand Name:** **Brand Name** are admixtures, and other special materials from the approved material list.
- **Ledges:** **Ledges** are the ledges from the aggregate source.

**AASHTO SiteManager**

File Edit Services Window Help

**Portland Cement Concrete Mix Design Materials**

Description Properties **Materials** Gradations

Mix ID 051501637P

Material Code	Material Full Name	Producer Supplier Code	Producer Supplier Name
904M06020	FA, NS, 23	Q982230	Rock and Roll, Inc
912M00100	Air Entraining Admixture	8266	W. R. Grace & Co
913M00040	Water	H20001	Municipal Water Source
904M00030	CA, Class AP, CS, 8	Q982230	Rock and Roll, Inc
901M00060	Portland Cement, Type I	W024444	Certifiable Cement
501M00010	QC/QA PCCP	CONC9018	Aru Ready Mix Co.

Material Code: 904M06020 FA, NS, 23

Brand Name/Ledges: 2-7B

Producer Supplier Code: Q982230 Rock and Roll, Inc

Sample ID: Specific Gravity:

Bulk Specific Gravity: 2.59 SSD Weight: 2.59 **INDOT**

Absorption Percent: 1.27 Batch Percent/Rate: 34.3%

Batch Mass: 1332.45 Units Type: Pounds

**Producer Supplier Code:** **Producer Supplier Code** is the facility where the CMD material originates. The Producer/Supplier's name is displayed in the field located to the right of the **Producer Supplier Code** field.

#### Sample ID:

- Individual materials: Sample ID of the Point of Use or Verification Testing sample for the individual material.
- PCC mixture: Sample ID of the Verification Testing sample for the Trial Batch Test.

**Specific Gravity:** **Specific Gravity** is used for Pozzolan specific gravity.

**Bulk Specific Gravity:** **Bulk Specific Gravity** is the bulk specific gravity of the individual aggregates.

**SSD Weight:** **SSD Weight** is used for the aggregates SSD bulk specific gravity.

**Absorption Percent:** **Absorption Percent** is the percent of water held in the internal voids of the aggregate.

**AASHTO SiteManager**

File Edit Services Window Help

**Portland Cement Concrete Mix Design Materials**

Description Properties **Materials** Gradations

Mix ID 051501637P

Material Code	Material Full Name	Producer Supplier Code	Producer Supplier Name
904M06020	FA, NS, 23	Q982230	Rock and Roll, Inc
912M00100	Air Entraining Admixture	8266	W. R. Grace & Co
913M00040	Water	H20001	Municipal Water Source
904M00030	CA, Class AP, CS, 8	Q982230	Rock and Roll, Inc
901M00060	Portland Cement, Type I	W024444	Certifiable Cement
501M00010	QC/QA PCCP	CONC9018	Aru Ready Mix Co.

Material Code: 904M06020 FA, NS, 23

Brand Name/Ledges: 2-7B

Producer Supplier Code: Q982230 Rock and Roll, Inc

Sample ID: Specific Gravity:

Bulk Specific Gravity: 2.59 SSD Weight: 2.59 **INDOT**

Absorption Percent: 1.27 Batch Percent/Rate: 34.3%

Batch Mass: 1332.45 Units Type: Pounds

**Batch Percent/Rate:** **Batch Percent/Rate** is used for individual materials that are identified as:

- **Rate:** **Rate** is the admixture dosage rate
- **Batch Percent:** **Batch Percent** is the component's batch percent

**Batch Mass:** **Batch Mass** is the individual material's total weight from the CMD.

**Units Type:** **Units Type** is the unit of measure for the batch mass or admixture volume.

“Click” on the next material to be viewed located in the **Material Full Name** column of the top panel.

The **Gradations** tab will not be utilized by INDOT.

# Viewing a Portland Cement Concrete Mix Design

## F-4-4-3 Group Exercise

In the following exercise, locate the source of #8 CS for PCC Mix Design 051502001P.

Log into SiteManager as inquire  
Password pass  
Log in as **PE/S**

Navigation from **Main Panel**:

Double-click on **Materials Management (+)** icon

Double-click on **Mix Design (+)** icon

Double-click on **Portland Cement Concrete Mix Design (+)** icon

Click the **Open** button located on the toolbar

**Mix ID**                      Locate:                      051502001P

<b>Answer: Independent Gravel Co.</b>
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